

PROGRAM CHARTER

FOR

Marine Weather Services

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1. EXECUTIVE SUMMARY

The Marine Weather (MWX) Program is part of the Commerce and Transportation Goal Team. The MWX operational products are produced by Ocean Prediction Center (OPC), Tropical Analysis and Forecast Branch of the Tropical Prediction Center (TPC), Honolulu and Anchorage Weather Forecast Offices of NWS. These operational units originate and issue maritime warnings and forecasts, continually monitor and analyze maritime data, provide guidance in text and graphic formats, and quality control marine observations globally prior to being ingested into computer models. The MWX program's resource consists solely of the Ocean Prediction Center. However, the MWX is responsible for overall planning and programming for the entire NWS marine and ocean forecast area of responsibility. Operational support to MWX comes from the National Oceanic and Atmospheric Administration's (NOAA) National Data Buoy Center and NOAA Environmental Satellite and Data Information Service. MWX's regions of responsibility cover the marine areas of the Northern Hemisphere South of 67N to approximately 15 degrees S (except Indian Ocean).

MWX services fulfill U.S. responsibilities in the interests of commerce, transportation, and homeland security under Executive Order 12234 (Enforcement of the Convention for the Safety of Life at Sea).

For more information about MWX, see the National Marine Forecast Page at

<http://www.nws.noaa.gov/om/marine/home.htm>

2. PROGRAM REQUIREMENTS

A. Requirement Drivers:

- 1) 1. Executive Order No. 12234 of September 3, 1980 ("Enforcement of the Convention for the Safety of Life at Sea"), 45 Fed. Reg. 58801 (Sept. 5, 1980), 3 C.F.R., 1980 Comp., p. 277. Requires NOAA/NWS to issue forecasts and warnings to mariners at sea.
- 2) United States Code Title 15 Chapter 9: "Sec of Commerce shall have charge of forecasting of weather, the issue of storm warnings, and display of weather and flood signals for the benefit of agriculture, commerce, and navigation ... the distribution of meteorological information in the interests of agriculture and commerce, and the taking of such meteorological observations as may be necessary to establish and record the climatic conditions of the United States...."
- 3) The Federal Water Pollution Control Act and the Comprehensive Environmental Response, Compensation, and Liability Act as implemented through the National Contingency Plan (NCP; 40 Code of Federal Regulations (CFR) Part 300) requires NOAA/NWS responding to discharges of oil or other hazardous substances, including those into a marine environment, to provide real-time weather support to emergency responders.
- 4) The National Search and Rescue Plan, 1999, requires the NWS, acting for NOAA, support marine search and rescue efforts.
- 5) Compact of Free Association Amendments Act of 2003, Pub. Law No. 108-188, 118 Stat. 2720 (2003) requires NOAA/NWS issue forecasts and warnings for certain areas of the Pacific.

- 6) Government Performance Results Act (GPRA) of 1993 requires NOAA/NWS to submit a strategic plan containing performance goals.

B. Mission Requirements:

- 1) Issue forecasts and warnings to mariners at sea and collect marine observations. (Requirement Drivers #1, #2, and #5).
- 2) Issue forecasts and warnings to mariners in selected High Seas via Navigational Teleprinter Exchange (NAVTEX) areas (Requirements Driver #1).
- 3) Develop and improve the science and technologies to provide better marine forecasts and warnings, and reach performance goals (Requirement Driver #6).
- 4) Provide real-time marine weather support to emergency responders to hazardous material spills at sea (Requirement Driver #3).
- 5) Provide real-time marine weather support to search and rescue efforts to marine or aircraft accidents at sea (Requirement Driver #4).

3. LINKS TO THE NOAA STRATEGIC PLAN

A. Goal outcomes:

- 1) Safe, secure, efficient, and seamless movement of goods and people in the U.S. transportation system (C&T). MWX provides weather warnings and forecasts to support the safe and efficient movement of vessels.
- 2) Environmentally sound development and use of the U.S. transportation system (C&T). MWX participates in providing support to hazardous material recovery activities. MWX also participates in providing support to recover endangered species (e.g. the Right Whale).
- 3) Reduced loss of life, injury, and damage to the economy (W&W). MWX issues marine warnings to enhance safety at sea.
- 4) Better, quicker, and more valuable weather and water information to support improved decisions (W&W). Vessel operators at sea make important operational decisions based on MWX marine forecasts.
- 5) Increased customer satisfaction with weather and water information and services (W&W). To the extent possible, MWX provides outreach to the marine community.

B. Goal Performance Objectives:

- 1) Enhance navigational safety and efficiency by improving information products and services (C&T). MWX provides weather warnings and forecasts to support navigational safety and efficient movement of vessels.
- 2) Reduce human risk, environmental, and economic consequences resulting from natural or human induced emergencies (C&T). MWX provides real time weather support to emergency responders for: (1) Hazardous material releases in the marine environment, (2) marine accidents, and (3) aircraft accidents over the ocean.
- 3) Increase lead time and accuracy for weather and water warnings and forecasts (W&W). MWX is developing applications techniques for improving marine weather forecasts and warnings.
- 4) Improve predictability of the onset, duration, and impact of hazardous and severe weather and water events (W&W). MWX is developing applications techniques for improving forecast timing of hazardous marine weather events.

C. Goal Strategies:

- 1) Expand and enhance advanced technology monitoring and observing systems, such as weather and oceanographic observations, ice forecasts and nowcasts, hydrographic surveys, and precise positioning coordinates, to provide accurate, up-to-date information (C&T). MWX uses and quality controls ocean and marine weather observations.
- 2) Develop and apply new technologies, methods, and models to increase the capabilities, efficiencies, and accuracy of transportation-related products and services (C&T). MWX uses ocean and marine weather modeling to improve ocean and marine weather forecasts to vessel operators at sea.
- 3) Develop and implement sophisticated assessment and prediction techniques, products, and services to support decisions on aviation, marine, and surface navigation efficiencies; coastal resource management, and transportation system management, operations, and planning (C&T). MWX provides weather warnings and forecasts to support decisions on marine navigation efficiency.
- 4) Build public understanding of the science and technology involved and the role of the environment in commerce and transportation through outreach, education, and industry collaboration (C&T). To the extent possible, MWX provides outreach to the marine community.
- 5) Improve the reliability, lead-time, and effectiveness of weather and water information and services that predict changes in environmental conditions (W&W). MWX is developing advanced marine forecast techniques.

4. PROGRAM OUTCOME(S)

- A. Increased marine transportation safety
- B. Improved marine transportation operations.
- C. Increased use and effectiveness of environmental information and planning for marine transportation systems.

5. PROGRAM ROLES AND RESPONSIBILITIES

This program is established and managed with the procedures established in the NOAA Business Operations Manual (BOM). Responsibilities of the Program Manager are described in the BOM. Responsibilities of other major participants are summarized below:

A. Participating Line Office, Staff Office, and Council Responsibilities:

- NOAA National Weather Service (NWS) is responsible for issuing warnings during life threatening weather situations and provides weather, water, and climate forecasts and warnings for the United States, its territories, adjacent waters and ocean areas, to protect life and property and enhance the national economy.
 - The National Data Buoy Center is responsible for providing in situ data from moored and drifting buoys.
 - The National Centers for Environmental Prediction's (NCEP) Environmental Modeling Center is responsible for providing atmospheric and ocean modeling in support of the marine program.
 - NCEP's Central Operations is responsible for providing a central supercomputing capacity to support global, high-resolution numerical models of the ocean and atmosphere as well as high-end computational workstations for data analysis and prediction.
 - NCEP's Tropical Prediction Center is responsible for providing tropical cyclone hazard
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information for MWX forecasts and warnings and coordinates with MWX over routine marine forecasts.

- NOAA Environmental Satellite Data and Information Services is responsible for providing satellite data in support of the marine weather program.
- The NOAA Office of General Counsel (GC) is responsible for providing legal services necessary to enable the program to discharge its duties. In this regard, GC provides a variety of specific services on an as-needed basis, including but not limited to: advice on legal issues related to program responsibilities; review and clearance of agreements, testimony, correspondence, and other documents; legal representation; assistance with litigation and requests for testimony or information; and coordination on behalf of the program with the Department of Commerce GC in the areas of contract, grant, intellectual property, labor and employment, appropriations, legislation and regulation, grant, litigation, and telecommunications law.

B. External Agency/Organization Responsibilities:

- NASA provides satellite data in support of the marine weather program.
- US Coast Guard is responsible for disseminating oceanic and marine weather forecasts, warnings, and other information to mariners at sea.
- State agencies, international partners, private sector organizations, and academic institutions provide in situ data from moored and drifting buoys.
- Academic institutions provide a capacity to support numerical models of the ocean and atmosphere.

6. END USERS OR BENEFICIARIES OF PROGRAM

- Maritime Commerce – the program provides critical decision support information and services to commercial shippers, fishermen, ocean mining industry, offshore construction industries, recreational boaters, hazardous material control and cleanup managers, and others who rely on marine weather and ocean information.
- Homeland Security – the program provides critical decision support information and services to the US Coast Guard and others who must safely and efficiently navigate the ocean's waters to provide national security.
- Emergency Responders - the program provides critical decision support information and services to emergency managers for hazardous material response, transportation accident over the ocean response, natural hazard (storms and hurricanes), and other events.
- General Public - the program provides critical decision support information and services to recreational users of the ocean.